

We claim:

1. A computer-implemented method comprising:

Sub A1  
5 at a network-address-translation (NAT) component, performing address translation at a packet level of a stream of packets originating from a client and destined for a server, the address translation redirecting the packets to a proxy component and masking a source of the packets; and,

at the proxy component, performing filtering at a stream level of the stream of packets, the proxy component transmitting the packets to the server.

2. The method of claim 1, further comprising:

10 at the proxy component, performing filtering at a stream level of a second stream of packets originating from the server and ostensibly destined for the NAT component, the proxy component transmitting the packets of the second stream to the NAT component; and,

15 at the NAT component, performing address translation at a packet level of the second stream of packets, the address translation redirecting the packets to the client.

3. The method of claim 1, further initially comprising, at a client, transmitting the stream of packets to the NAT component, the NAT component specified as a gateway at the client.

20 4. The method of claim 1, wherein the address translation redirects the packets to a socket of the proxy component.

5. The method of claim 1, wherein the proxy component transmits the packets from a socket thereof to the server.

6. A machine-readable medium having instructions stored thereon for execution by a processor to perform a method comprising:

5 performing address translation at a packet level of a stream of packets originating from a client and destined for a server via network-address-translation (NAT), the address translation redirecting the packets to a first proxy socket and masking a source of the packets; and,

10 performing filtering at a stream level of the stream of packets, the packets subsequently transmitted from a second proxy socket to the server.

7. The medium of claim 6, the method further comprising:

15 performing filtering at a stream level of a second stream of packets originating from the server and ultimately destined for the client, the packets received from the server at the second proxy socket and subsequently transmitted from the first proxy socket; and, performing address translating at a packet level of the second stream of packets, the address translation redirecting the packets to the client.

8. A computerized system comprising:

a client;

20 a server with which the client communicates via a first stream of packets from the client to the server and a second stream of packets from the server to the client; and, a network-address-translation (NAT)/proxy device designed to perform address

translation at a packet level of the first and the second streams of packets, and to perform filtering at a stream level of the first and the second streams of packets.

9. The system of claim 8, wherein the NAT/proxy device comprises:

- 5 a NAT component designed to perform address translation at a packet level of the first and the second streams of packets; and,
- a proxy component designed to perform filtering at a stream level of the first and the second streams of packets.

10. The system of claim 9, wherein the NAT component is further designed to redirect the packets of the first stream to the proxy component and mask a source of the packets.

10 11. The system of claim 9, wherein the NAT component is further designed to redirect the packets of the second stream to the client.

12. The system of claim 9, wherein the proxy component is further designed to transmit the packets of the first stream to the server.

13. The system of claim 9, wherein the proxy component is further designed to transmit  
15 the packets of the second stream to the NAT component.

14. The system of claim 9, wherein the proxy component has a first socket at which to receive the packets of the first stream from the NAT component and from which to send the packets of the second stream to the NAT component, and a second socket at which to

receive the packets of the second stream from the server and from which to send the packets of the first stream to the server.

15. A network-address-translation (NAT)/proxy device comprising:

first means for performing address translation at a packet level of a first stream of  
5 packets from a client to a server and of a second stream of packets from the server to the client; and,

second means for performing filtering at a stream level of the first and the second streams of packets.

16. The device of claim 15, wherein the first means is further for redirecting the packets  
10 of the first stream to the second means and for masking a source of the packets of the first stream, and to redirect the packets of the second stream to the client.

17. The device of claim 15, wherein the second means is further for transmitting the  
packets of the first stream to the server, and to transmit the packets of the second stream to the first means.

18. The device of claim 15, wherein the second means has a first socket at which to  
15 receive the packets of the first stream from the first means and from which to send the packets of the second stream to the first means, and a second socket at which to receive the packets of the second stream from the server and from which to send the packets of the first stream to the server.

20